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EXTENSION SERVICE

# REVIEW

U. S. DEPARTMENT OF AGRICULTURE \* MARCH 1967



*The Extension Service Review is for Extension educators—in County, State, and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their communities.*

*The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.*

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## Strong Community Vital to Agriculture

As has been stated so many times in recent years, agriculture is more than growing "two blades of grass where one grows." To concern ourselves only with the production aspects of agriculture and better living for rural people is to shortchange a people to whom we have a major responsibility.

No segment of the economy can be built on less than a solid foundation—a foundation that provides adequate labor, adequate education, adequate services, and adequate marketing and transportation facilities. This is as true with farm production as with the manufacturing industry.

Building a strong community that provides a suitable environment for more profitable businesses, public facilities, better homes and family living is a necessary responsibility of Extension—if we commit ourselves to the task of serving our countrymen through building a strong and viable agriculture that has the flexibility and strength to adjust to meet the needs of a shrinking world with a growing population. WJW



# Private Consultants Provide Assistance

by  
Charles E. Bell, Jr.  
*Director*  
*FES Division of Agricultural Science,*  
*Technology, and Management*

One does not have to be a prophet to predict that today's technological revolution in agriculture is only the beginning. Even the most imaginative minds cannot fully visualize the automated food factories of the future. Some of the predictions read like science fiction, but many of us will live to witness some of them as realities.

The comparatively simple farming problems of yesterday have become extremely complex. The farmer is operating in a different and difficult economic environment. Farming has become big business involving large capital investment and high degrees of risk.

The changing situation has called for expanded research and informational services and for new educational tools and techniques. The explosion of knowledge in agriculture that was triggered by Extension-research teams has grown to such proportions that many agencies, organizations, and firms are now providing the farmers with information and technical services. The demand for additional knowledge and counseling is bigger than research, educational, and service workers can supply.

Extension can no longer be all things to all people. The fundamental concept of Extension is to help people help themselves. They organize themselves for cooperative action and assume responsibility for leadership.

Inevitably, complementary action is needed. Each new technological development and related educational program creates new needs and opportunities for personal service.

Accompanying the trend towards larger and more specialized operating units is a growing demand for professional management assistance. More and more producers will be seeking and able to pay for this service.

A dynamic food and fiber industry needs highly specialized individual services ranging from handling management decisions to providing special laboratory and electronic computer services. In other cases, troubleshooting and efficiency analysis may be needed. To satisfy these needs, a steadily growing profession of private agricultural consultants has developed in recent years.

Extension workers and private consultants have much in common. Both are dedicated to helping farm operators improve their businesses. The

primary difference in the two professions is in emphasis.

The role of Extension is, first and foremost—*education*. Extension has a mandate to provide agricultural information to all who desire it. Extension's unique "education for action" process frequently requires some service assistance in new programs, but only until the people can assume leadership.

The primary emphasis in professional consulting is on *service*. Specialized services are provided to selected individuals who consider the fees a good investment. The consultant can limit his clientele to fit his resources; therefore, he can provide intensive individual attention.

The American Society of Agricultural Consultants, organized in 1963, has established high standards of professional competence and reputation as prerequisites for admission. Membership, which is limited to consultants who are not employed by manufacturers or distributors of products, has grown to over 140.

What are the implications for Extension? I do not visualize the consulting profession replacing established educational and information agencies. Instead, I see it complementing the educational programs of Extension and the many other sources of agricultural assistance already available. It can extend the influence of Extension work.

Extension will continue to be the farmers' first source of information, and the key link between farmers and the sources of specialized knowledge of our research institutions. Requests for individual services, however, are increasing beyond that which Extension can provide.

Some Extension workers refer these requests to a competent professional consultant. Where a spirit of cooperation exists between Extension and consultants, the overall educational effort benefits.

This will be shown in several articles by Extension agents and professional consultants in future issues of the Review. □



*These feeder pigs have been sorted for shipment according to accepted standards.*

## Extension-Guided Co-op Sets National Example

by  
Norbert Brandt  
*Production Manager  
Wisconsin Feeder Pig Marketing Co-op*

For a century or more many Wisconsin dairy farmers kept a sow or two or three as "mortgage-lifters," but a decade ago they became disgusted with the antics of feeder pig buyers and the market.

When feeder pig prices were high, their driveways looked like Chicago's Kennedy expressway during the rush hour, but when prices were low and selling was hard, buyers vanished.

This placed a risk on the farmer that he might not be able to sell feeder pigs as a cash crop at any price. Then one night 11 years ago after a swine breeders' meeting in northeastern Wisconsin a farmer said, "Let's present our county Extension agent with this problem."

Today the Wisconsin Feeder Pig Marketing Co-op (WFPMC) is the world's largest and most widely imitated. In the decade since its formation it is estimated that Wisconsin and Minnesota feeder pigs have been

worth \$2 more than they would have been without the co-op.

In Wisconsin alone this means an extra \$10,982,728 in cash farm income from feeder pigs during the past decade. Other States following the Wisconsin idea have had similar results, but on a smaller scale.

Daily the WFPMC proves the old saw: "Cooperatives pay all they can; competition pays what it must."

As many as 479,000 pigs have been sold for farmers by the WFPMC in a year. At the 10th annual meeting in March, general manager Norval Dvorak reported feeder pig sales for 1966 at just under \$9,000,000.

What Wisconsin farmers wanted and received from Extension through help in organizing the co-op were: 1) weekly organized markets; 2) to be treated fairly and alike; 3) top prices; 4) help in raising, feeding, breeding, and marketing feeder pigs.

These wants were made known to Dave Williams, then Extension leader for northeastern Wisconsin and now assistant dean of Extension.

Williams contacted University of Wisconsin Extension swine specialist Fred Giesler, who organized a tour for three county Extension agents which followed Wisconsin feeder pigs to corn belt farms.

Making the trip in April 1956 were Maurice Hovland of Kewaunee County, Orrin Meyer of Calumet, and Norbert Brandt, Manitowoc County livestock agent.

They found Iowa, Illinois, and Indiana farmers anxious to buy thrifty 40-pound feeder pigs and thus avoid the job of farrowing pigs by the hundreds themselves.

"All they really wanted to do was wrap their corn in pigskin," Giesler recalls.

Wisconsin farmers wanted a good



price—Iowa farmers wanted their money's worth. Corn belt farmers were willing to pay for well-bred, fast gaining, healthy feeder pigs.

The three county Extension staffers held meetings in their counties to report what they had learned. From this came a 10-man steering committee, representing farmers of nine counties.

Williams invited Robert Rierson, a University of Wisconsin Extension marketing specialist, to attend the meetings. Brandt took a leave of absence from Manitowoc County to become Extension co-ordinator of the project.

The nine county agents held meetings, made farm calls, organized teams of farmers to solicit autographs on contracts, and generally explained the purposes and goals of the proposed cooperative.

One of the hardest-working farmers at that time was a swine breeder and private feeder pig buyer, Norval Dvorak, who had recently been named the State's outstanding young farmer.

In February 1957 a board of directors was named, and they in turn picked Dvorak as general manager. By March nearly 500 farmers with 3,000 sows were charter members of the first feeder pig marketing co-op in the nation.

Because Giesler insisted on quality control to insure castrated, healthy, well-bred pigs, Dvorak hired Brandt from the Extension Service to become production manager.

"You must have quality to get repeat business, and a steady year-round supply of good feeder pigs," Giesler preached.

One of the first apostles of the meat type hog, Giesler wanted Wisconsin phased out of both the short chuffer and the long fine boned pig production business.

The co-op, he felt, was the fastest way to get the job done, so Giesler and Brandt staged scores of feeder pig clinics.

The county Extension agents switched from providing leadership and organizational know-how, to educational meetings devoted to quality

production and top management for higher profits.

Joining the Extension team in this new phase was Richard Vilstrup, live-stock marketing specialist. He didn't have to remind feeder pig producers that prices jumped \$1.50 a head in Wisconsin the first week the co-op shipped pigs.

Brandt and Giesler went to farms, evaluated the breeding stock, and looked at the feeder pigs. Giesler brought samples to county shows and clinics where they were judged officially and by spectator farmers.

After the judging the co-op bought the pigs and fed them out. Prior to slaughter Giesler had the farmers look at them again, and after slaughter he mailed them the carcass information which he computed.

Information gathered at those early clinics is the basis of present Federal feeder pig standards and grades.

To insure action, Brandt provided financial incentives for co-op members to upgrade their breeding stock. The Extension Service worked on establishing testing stations where breeders

could see the kind of meat provided by the genes they sold.

Always working with Extension, the co-op promoted managerial skills from feeding to housing and started an ear tag identification system on each feeder pig sold—a feat many said couldn't be done. Many States now use similar systems.

Financial support is given to University of Wisconsin swine research by the co-op, and it co-sponsors an annual swine day with the Extension Service.

Today with almost 9,000 members in four States, sales in 48 States, and 12 organized markets in Minnesota, North Dakota, Iowa, and Wisconsin, the co-op also owes a debt of thanks to the many vocational agriculture instructors who helped launch it and to the Wisconsin department of agriculture.

Most Wisconsin farmers now farrow their sows the year round and are provided with on-the-farm weighing and pickup weekly. Many find it profitable to raise feeder pigs as their major source of farm income. □

*Fred Giesler, Extension swine specialist, exhibits a group of pigs used at a feeder pig clinic and then fed out.*





*With hard work and the technical and informational assistance of the Extension agents, the owners of Brookside Ranch, Park Rapids, Minnesota, developed this attractive par three golf course.*

# Resort Management Institutes

Sixty years ago a reluctant Minnesota farmer provided food and lodging for vacationers who came to fish in a nearby lake. This marked the beginning of one of the State's larger resort operations.

Recreation on the 14,000 Minnesota lakes proved to be a great magnet, especially after the advent of the automobile. Resorts, along with second-home developments, proliferated rapidly. Over 3,200 resorts now serve an important part of the State's \$500 million tourist industry.

Most of these resort firms are family operations, with organization similar to that of most farm operations. They require the same management services concerning markets, record keeping, and financial analysis; and various technical services concerning development and plan of maintenance.

Because of these management needs, a major emphasis was placed upon management education by the tourist

service Extension specialist, who was appointed in 1961.

A program of one-day regional Resort Management Institutes was set up to provide a systematic means of education in management, as well as an ever-expanding means of communication between firm managers and Extension.

From the beginning these institutes have been a team effort, involving a wide range of resource specialties. Extension personnel who provide the core include, in addition to the tourist service and recreation specialists, specialists in home furnishings, horticulture and landscape architecture, farm management economics, visual education, and bulletins.

In addition, many other university departments have assisted, including the Forestry School, other home economics disciplines, recreation and parks, entomology, fisheries and wildlife, and sociology. County Extension personnel perform a key role in plan-

## *Minnesota Extension Helps Resort Owners Serve Tourist Needs*

by  
Uel Blank  
Recreation Specialist  
and  
Lawrence Simonson  
Tourist Service Specialist  
Minnesota Extension Service

ning, publicizing, and promoting the programs, conducting institutes, and doing followup work with operators.

An important feature of the institutes has been the wide range of State government departments and other agency personnel involved in the teaching. Among these are the Small Business Administration and the Minnesota Departments of Highways, Health,



Conservation, and Business Development.

By means of a small grant from the Economic Development Administration, it has been possible to employ private specialists. Added to the teaching teams have been advertising agency specialists (marketing), landscape architects (site planning), architects (design planning), and engineers (water and sewage systems).

Forty-one Resort Management Institutes have been conducted. Attendance has averaged over 30.

Perhaps the major result of the institutes has been communication with a greatly different clientele. These managers are closely related to natural resources, but many had not had prior contact with Extension workers.

Most institutes serve to provide contact for Extension not only with resort industry people, but also with other agencies. In two recent cases, institutes provided the forum for an objective discussion of fish management in large lakes. The Minnesota Conservation Department was able to achieve rapport with operators where a large degree of opposition and misunderstanding had previously existed.

The William Bedfords have nearly doubled the capacity of Brookside Ranch, Park Rapids, by going from 11 to 20 units, plus family units. The Bedfords have attended several seminars and have incorporated many of the ideas into their expansion.

They developed an attractive par-three golf course with design help from Hubbard County agents, who also obtained technical information on turf development and irrigation system layout. A professional site planner, who was a seminar participant, gave individual assistance to the Brookside expansion plans under a private contract.

The Bedfords, in return, assisted with a short intensive professional improvement course on Recreation Resource Development by telling the class about Brookside Ranch, its operating characteristics, and its development plans.

Several trailer and camping facilities have been developed at resort

properties as a result of seminar participation and individual consultation. As a direct result of a seminar at Rainy Lake Lodge, and through the efforts of the county agent and the forestry specialist, an interpretive nature trail for family enjoyment has been developed. The idea was proposed by the horticulture specialist at the seminar.

The home furnishing specialist assisted one participating family with a complete rejuvenation of the interiors of their resort buildings, including new decorating schemes. She has given similar assistance to other resorts.

As a result of business management discussions, approximately 30 Minnesota resorts now use the Michigan Resort Account Book. It has proven useful to these operators in replacing ineffective systems or beginning new systems.

The efforts of the visual aids specialists and the bulletin editor have led to changes and improvements in many resort brochures. Many participants appear eager to have a critical examination of their "marketing program" as a part of or following a seminar.

Resort Management Institutes are only one facet of the total Minnesota Extension program serving the tourism and recreation industry. A quarterly publication, Minnesota Tourist Travel Notes, goes to over 5,000 persons. Hospitality training schools involving the overall community leadership are conducted. A variety of training is supported for individuals seeking employment with recreation-related businesses.

Recreation resource planning at State and local levels is receiving emphasis as an important part of the Extension recreation program. □

*Jim Colby, left, owner of Rapid River Logging Company, reviews points of interest on a nature trail with two guest families. The county Extension agent helped lay out the trail and prepare the explanatory booklet.*





*Samuel Littlejohn, left, chairman of the sponsoring committee, listens as Extension agent Ben S. Lee reviews one of the community clubs' accomplishments with leaders Lillian Robinson and Walter Ingram.*

### **Poor or Well-to-do—**

## **Hamlet 4-H Meets Needs of All**

by

**Jimmy Tart**

*Assistant Extension News Editor  
North Carolina State University*

A youth organization that is being tailored to meet the needs of both the "poor" and the "well-to-do" is receiving major attention in this little railroad town.

There have been many changes among Hamlet's youth since three 4-H Clubs were organized in January 1966.

Hamlet is a town of some 6,500 people. The area of 4-H activities is an urban-type community of about four square miles located at the town limits.

Families run the gamut of the economic scale. Some have annual incomes of about \$200 and others enjoy a \$10,000-plus annual income. Parents are doctors, teachers, railroad men, and domestic workers. Some 58 percent of the children in the community come from homes where the annual income is less than \$2,000.

Mrs. Doris J. Tomlinson, an elementary school librarian and a former 4-H member, is a leader of one of the clubs. She explains that some parents hold jobs that keep them away from home much of the time; therefore, the

boys and girls do not receive the individual help and guidance they need.

A group of five older boys and girls who wanted something to do started the movement for the youth organization. Ben S. Lee, Richmond County assistant agricultural Extension agent, gives them much of the credit for organizing the clubs.

These boys and girls were unable to participate in 4-H Club work on a formal basis after club meetings were taken out of the public schools several years ago. However, they remained members-at-large, participating in various activities at the county level.

The boys and girls found additional support from the adults. Several 4-H alumni in the community helped get the ball rolling. The youth and adults contacted their Extension agents for help in organizing the 4-H Clubs.

The Extension agents contacted several key citizens in the eastern section of Hamlet and found additional support for the 4-H Club movement. These citizens were invited to a meeting, and a sponsoring committee composed of four people was named from several alumni who were in attendance. The committee's job was to secure names of prospective 4-H members and to get adults who would serve as leaders.

The sponsoring committee and Extension agents decided to organize three clubs in the eastern area of Hamlet. Six adults consented to serve as leaders.

The committee chairman, Samuel Littlejohn, former high school teacher and now an elementary school principal, explains, "The leaders were here. We just contacted them and asked them to serve." Two leaders were selected for each club.

The Extension agents held five training sessions with the club leaders and the sponsoring committee members. These sessions included: (1) how to conduct a community 4-H meeting, (2) how to train club officers, (3) planning the educational program, (4) planning project work, and (5) securing parents' support.

Sixty-four boys and girls from 31 families joined the three clubs. The



clubs were organized around the three schools in the area with the 64 boys and girls about equally distributed.

Changes have been remarkable since the clubs were organized last year. There appears to be an increase in understanding between the children, regardless of socio-economic level.

The children respect each other and try to help others when possible. As an example, the leaders point out that the children whose parents have above average incomes are anxious to help youngsters from low-income homes. "They donate clothes and help the underprivileged with everyday activities such as tying shoes and fixing their hair."

The youngsters have been actively engaged in project work, demonstrations, and community activities. Regardless of income, the girls choose projects such as cooking, sewing, child care, and flowers and help each other with their record books.

The boys are most interested in electric, recreation, garden, and forestry projects. They help each other in identifying tree leaves, learning new games, and in many other ways.

Hamlet 4-H'ers gave five demonstrations in county competition last summer. Four of these demonstrations won county honors and were given in the district event. Two were named runners-up.

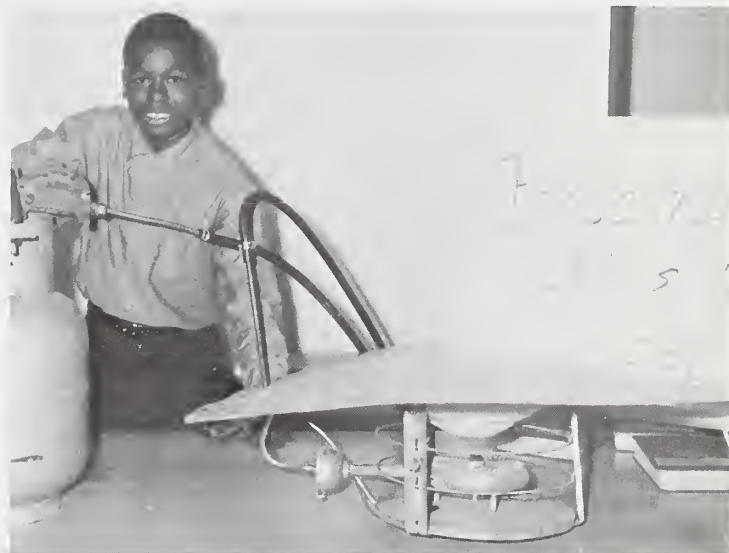
Community projects have been limited thus far, but plans are being made for further action. One club cut flowers and took them to the sick in the community. A later clean-up campaign encouraged the youngsters to pick up trash in their neighborhood. One community project in the planning stage involves securing donations of shrubbery and planting the shrubbery around one of the local churches.

The leaders have been successful in getting financial support for the program, including eight \$20 scholarships for 4-H camp last summer. Civic clubs and business firms have been cooperative.

The Hamlet 4-H program is proving that boys and girls from all socio-economic levels can learn together and learn from each other. □



*At left, a leader shows a Hamlet 4-H'er the correct stitching for her material. Below is a demonstration which was a runner-up in the district contest.*



*Mrs. Doris J. Tomlinson, leader, helps members of the East Hamlet Club select shrubbery to plant around a local church.*





# Wisconsin Specialists Demonstrate New Management Tools

by  
Robert Luening  
and  
William Saupe\*

Wisconsin farm management specialists have demonstrated some relatively new management tools—farm business analysis and linear programming—by putting them into actual use on a Wisconsin farm.

The dairy and cash crop farm operated by Ken Jacobs has been used for Extension educational meetings involving farm operators from Racine County and farm management specialists from Wisconsin and Illinois.

Jacobs has been a TVA Test-Demonstration farmer since 1963, and kept a good set of hand records in connection with that program. In 1964 he enrolled in the Wisconsin Electronic Farm Records Program.

As part of the Test-Demonstration program, educational meetings for farm operators were held on the Jacobs farm. Production technology and management problems for the

local area were discussed by Extension specialists and Jacobs.

The Jacobs farm was also used as an educational example to indicate the value of linear programming as a farm planning tool—one of the many tasks computers can perform in providing better information for farm management decisions.

Extension specialists helped Jacobs make a major farm management decision, then used the situation as the basis of a farm management workshop. Need for a decision arose when two nearby farms became available for renting, and Jacobs' brother-in-law expressed an interest in joining the business.

The county farm management agent discussed the situation with the family, and a University of Wisconsin farm management specialist used Jacobs' Electronic Records Farm Busi-

ness Analysis information to help develop a linear programming model.

Several alternative cropping systems and livestock systems that could fit the farm's physical facilities and the operator's abilities were considered in the model. Solutions were developed for the original farm and for the farm as it would appear in the proposed consolidation.

Interpretation of the solutions provided insight into the expected earnings from the farm business.

As a result of this work, University of Wisconsin farm management specialists used the Jacobs farm as the site for a farm management workshop. Fieldmen from the Wisconsin Farm Management Association and from the Illinois Farm Business Association were the clientele.

After the problems and expected profitability of the farm consolidation had been studied, the group discussed the legal arrangement under which two operators can conduct a farm business jointly. This part of the meeting was handled by a local attorney with a farm background and farm legal experience.

He discussed the legal aspects of consolidation, the advantages and disadvantages of partnerships, corporations, and other types of family arrangements. He also covered ways of handling property transfers that would be equitable to all parties concerned, and the tax implications in estate planning features.

Key points in the workshop were the use of farm records and business analyses as a source of information for farm management decisions, as well as educational work in farm management and the use of linear programming as a planning tool.

Through Extension's use of this one farm as a base for educational operations, Wisconsin farmers are becoming better prepared to utilize the latest management techniques to improve their farm operations. □

\* Luening, Racine County Farm Management Agent; Saupe, Farm Management Specialist, Wisconsin Extension Service.

*Robert Rieck, University of Wisconsin farm management specialist, speaks to a group of participants in the farm management workshop at the Jacobs farm.*





*At left, Trooper F. A. DeFrancisco discusses "Highway Citizenship." Above, short course participants board a bus for a tour of the State Capitol in Albany.*

# Citizenship Begins at Home

by  
Lyndon J. Howlett, Jr.  
*Extension 4-H Agent  
Washington County, New York*

A trip to Washington, D. C., for the National 4-H Citizenship Short Course is a valuable experience, but relatively few 4-H members have the opportunity to attend.

The idea of a Citizenship Short Course on the State level grew out of the Eastern District 4-H Conference at New York when a representative of

the National 4-H Club Foundation met with the agents to discuss citizenship. The committee which was appointed to plan the first annual New York State Citizenship Short Course met four times to plan the objectives and aims of the program and make suggestions for principal speakers.

The plan was for a five-day course, starting at noon Monday and ending at noon Friday, at a 4-H camp 20 miles from Albany, the State capital.

The themes were to include: What is Citizenship? with Dr. Charles Freeman, National 4-H Club Foundation program leader in Citizenship and Leadership Education as keynote speaker; Our Heritage, New York State History; State Government, Checks and Balances; State Government, Divisions and Departments; and What Can We Do at Home?

With this outline as a beginning, the committee thought the battle was half over. However, since many of the best qualified participants were not known to the committee, much groundwork was necessary to develop contacts, explain objectives, and meet new people.

This procedure has made many persons more aware of the 4-H educational program. Most contacts were made through the committee chair-

man's local assemblyman. One important contact was with the public relations division of the Office of General Services, which is responsible for maintenance and guides for the Capitol. Other government divisions and commissions also were assisted. The final program generally followed the original outline, and incorporated several tours of historic sites and government buildings and a dinner with legislators from eastern New York.

Seventy-five 4-H'ers registered. Enthusiasm was high and final evaluation sheets showed that participants considered the program successful.

Planners of the course discovered several guidelines which could be helpful to others planning a similar event:

1. Contact an assemblyman or State legislator early to do some of the spadework.
2. Keep political speakers limited in time.
3. Keep the program diverse; provide change in scene and speakers often.
4. Brief speakers thoroughly ahead of time about the age, number, and educational level of the audience.
5. Send out orientation material several weeks ahead so participants will know what to expect and can think of how they will apply the training. □





*Humboldt County Extension Agent, Kirk Day, talks with an Orovada rancher about the Farm Management Short Course. Stretching alfalfa fields lie beyond.*

**Desert Entry Farming and Ranching Problems  
Provide Impetus for Nevada's Successful . . .**

## **Farm Management Short Course**

by  
Dave Mathis  
*Information Specialist*  
*University of Nevada*

"Is there a course offered at the University that we could take to get some instruction on farm and ranch management methods and techniques?"

The question was directed to William V. Neely, Extension production economist, Max C. Fleischmann College of Agriculture, University of Nevada, and to Dr. LeRoy Rogers, associate professor of Agricultural Economics at the University. It precipitated what was to be the first, and a successful, Extension Farm Management short course to be conducted

in an outlying area of Nevada for local ranchers and farmers.

Making the query was a desert land entry rancher in the Orovada area north of Winnemucca, Nevada. The Orovada country is situated in a long north and south valley bordered to the east by the precipitous and towering Santa Rosa Range and to the west by the Quinn River and the high sage plateau stretching south from Disaster Peak.

There have been, for years, some big ranches in the vicinity, but dur-

ing the past decade and a half, desert land entry farmers and ranchers have moved into the country. They have carved out productive acres from the endless, big sage flats.

Due to the costs of these initial developments, the capital position of many of the desert entrymen has not been strong. They've had to make their money count in the most efficient way. For these reasons, the question on the part of the desert entry rancher to Neely and Rogers was a very practical one.



It was put to the two economists while they were in the area on a joint Extension-research project concerning enterprise cost analysis directed to alfalfa seed production, a principal local industry.

As a means of gathering data, the economists engaged in "talk-out" sessions with the local ranchers and farmers. It was during one of these that the rancher, interested in methods of accounting used by the economists, asked the question.

Neely's reply was, "We'll go you one better—we'll bring the course to you." He explained that they would have to coordinate the course with J. Kirk Day, Humboldt County Cooperative Extension Agent, and that the farmers and ranchers would have to help get a turnout for the course.

Day had worked with the local ranchers and farmers since they had come into the valley. He knew what might be useful to them, and he lent full support to the idea. Along with Assistant Agent Gary Cook, he made arrangements for the course to be held in Orovalda, secured a meeting place, and handled the publicity chores. He and Cook covered many miles, a number of which were over dirt roads, to personally contact the ranchers and farmers.

The course began during the last week of January, 1965, and ran through the third week of February. Three-hour sessions were conducted twice a week, for a total of 24 hours over the four-week period. Both Neely and Rogers served as instructors. Classroom facilities were provided by the Harney County Electrical Company.

A total of 25 farmers and ranchers enrolled in the course. This represented a comparatively high percentage of all agriculturalists in the area and also diverse interest groups—the alfalfa seed industry, grains, hay, and livestock. Twenty-one of the 25 graduated, also a high percentage.

The course was constructed on basic management principles and was not oriented specifically to that geographic area. Offered were such subjects as the decision-making process;

basic accounting principles used in farm management; records and record keeping systems and how to use them; management tools, including budgeting and linear programming; prices; use of outlook and farm marketing problems; farm credit; farm labor; farm machinery; tax management; and cropping and livestock systems. The last session was devoted to a simulated situation—a farm management game.

An interesting aspect of the course was the miles logged by participants to attend the sessions. Ranchers from both the Orovalda and Kings River areas participated. Some had to commute 40 miles one way to attend the session, mostly over chuckholed dirt roads. Winter snow and below zero temperature didn't help.

Either Day or Cook, and many times both of them, attended each session. This meant a 90-mile round trip drive for each class. And Neely and Rogers made a 440-mile round trip each week to put on the course.

Measuring the success of the course has mostly been through favorable comment by both those who participated and various loaning agencies. The Reo-King ranching operation, a large one even by Nevada standards, employs considerable labor and ac-

cording to comments by their manager, they found the labor management aspects of the course particularly helpful.

Others said it aided them in planning and budget preparation. Loaning agencies specifically commented on this aspect and said that the ranchers came to them with well-planned programs and budgets upon which they requested operation funds.

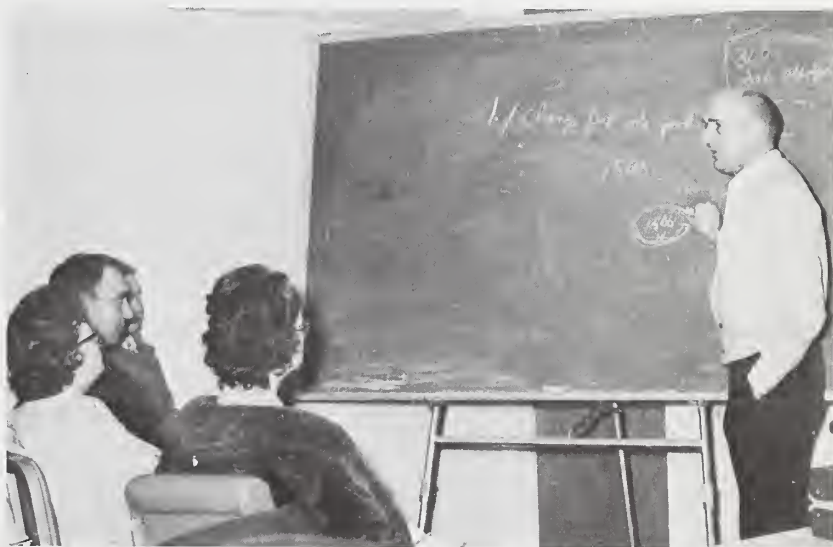
Production in 1965 in the valley was under potential partially due to adverse weather conditions, including August rains which thwarted proper alfalfa seed development and shattered some developed seed.

The past year, 1966, however, was a top crop year in the valley. Even though the ranchers were coming off a relatively poor year, they were able to obtain the necessary capital to take advantage of the good one.

It is felt that one of the reasons for this is what the loaning agencies have commented upon—good budget presentations by the farmers and ranchers.

An important measure of success, too, is the fact that those in the Orovalda and Kings River country have requested that another management course be conducted soon in their area. □

*Orovalda Farm Management Short Course class members listen intently as Bill Neely, University of Nevada Cooperative Extension Economist, explains management techniques.*



# Teamwork Solves Problems

**Georgia Extension's  
Cotton Program  
Sets Good Example**

by  
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*Examination of plants and soil in the field by Extension-research teams is an important part of the Georgia cotton program. Here, a portable pH meter is used to determine soil acidity.*

Time lost in diagnosing and solving problems can be costly to modern commercial farmers.

Therefore, when unfamiliar damaging symptoms appear on a crop, they're interested in quick answers. To be of reliable help in such cases, Extension must have resources and an organizational structure to provide technical information and assistance in a hurry.

Increasing complexities of crop production make it more difficult—if not impossible—for one person to have sufficient knowledge to answer all questions about production problems.

Interaction between plant nutrition, diseases, insects, soil, and other en-

vironmental factors makes it necessary for several specialists to diagnose and make recommendations for treatment of many problems.

Getting information and advice from several specialists can be slow and time-consuming if plant specimens and problems are given attention by one person at a time.

In Georgia the Extension Service specialist team approach is geared to getting answers to major production problems in the shortest possible time. Routine examination of plant specimens is handled through a plant clinic staffed by plant pathologists, entomologists, weed control specialists and agronomists.

Here's how the team approach worked with a major cotton problem in 1966.

Irregular growth of cotton plants caused farmers, county agents and Extension specialists to be concerned about the production prospects for the crop last year. Areas of severely stunted plants were found in fields throughout the State.

The Extension specialist team consisting of an agronomist, a plant pathologist, an entomologist, and an agricultural engineer organized a two-day problem-study tour in six counties having the irregular growth problem. Each specialist contacted his counterpart scientists in research and





*Poorly developed taproot systems, resulting from compact soil and low soil pH, were found in nearly all the fields visited. In many cases, taproots were only 3-5 inches deep.*

invited a representative to assist with the study.

The final problem-solving group consisted of Extension and research personnel from the departments of agronomy and soils, plant pathology, nematology, entomology, and agricultural engineering.

The joint team from Extension and research made it possible to examine visible symptoms of stunted plants in the field and collect plant and soil specimens for laboratory analysis.

Thus, time spent for diagnosis and treatment recommendations was cut to a minimum. Often "on the spot" recommendations for correcting problems were made. The study tour also gave research workers an opportunity

to see field problems needing additional research aimed at their solution.

During field examination and subsequent laboratory analysis of plant and soil specimens, the following factors contributing to the problem of poor growth were identified:

*Plant Nutrient Deficiency Symptoms.* Magnesium deficiency symptoms were present in several fields. One field showed nitrogen deficiency symptoms.

*Shallow, Poorly Developed Root System.* Stunted plants had a poorly developed root system in almost 100 percent of the fields visited. In many cases tap roots were only 3-5 inches deep. Severe dying of feeder roots was present in nearly all fields.

Factors contributing to poor root development were (1) soil compaction at 4-6 inch depth, (2) suffocation due to extended period of excessive rain during May, (3) low subsoil pH, (4) cold soil during early growing season, (5) disease organisms attacking plant roots during unfavorable environmental conditions, and (6) perhaps herbicidal injury to lateral roots on light soils during unfavorable weather conditions.

*Diseases.* Cotton was dying in six of ten fields from Fusarium wilt. Some fields had root knot nematode symptoms but did not have Fusarium wilt. Root knot nematode and Fusarium wilt are usually associated, and symptoms of both were noticed in the wilt-infested fields.

*Soil Condition.* Several fields had a compacted soil layer at 4-6 inches deep which prevented root penetration. Low soil pH was a problem in several fields. Soil pH ranged from 4.6 to 6.0. Optimum pH for cotton production is 6.0 to 6.5.

*Herbicide Injury.* Some fields received herbicides in excess of recommended rates for the soil type, which probably contributed to inhibition of feeder roots.

Farmers and county agents in the counties where fields were examined were given information for solving some of their problems during the tours. In some cases recommendations such as application of additional nitrogen were carried out on the current crop. Other practices aimed at solving cotton problems will be practiced in the future.

The following week a letter outlining the situation and findings of the study group, along with recommendations, was mailed to all county agents. Action by the team made it possible to diagnose and make recommendations for correcting many of the problems within a week's time.

Farmers visited on the tour liked this problem-solving approach. They reported that prompt action to help them solve problems increased their profits. That's the kind of reputation Extension seeks to maintain. □





## From The Administrator's Desk . . . . by Lloyd H. Davis

### He Who Doubts

"What a man hears he may doubt, what he sees he may possibly doubt, but what he does himself he cannot doubt."

Thus, Seaman A. Knapp, the father of Extension, explained the theory and practice of Extension. We have described Extension's role similarly by saying 4-H is "learning by doing."

These are cliches of a generation past, lacking meaning to the children of the television, atom, and rocket era.

Several observers have commented to me that Extension lacks a "theory" of operation. Others have asked, "How are you different from a host of other organizations and programs?"

Indeed, what are our principles of operation? Maybe we all need to review these occasionally. Books can be written, but what is the essence in a nutshell?

Probably my statement of them, too, sounds like old cliches—not quite suitable for the "jet set"—but here's a beginning.

—People can work to improve their farms, businesses, homes, communities, and lives only when they believe improvement is possible and can see hope for something better.

—To take action involving risk, people require confidence of their ability to succeed or to accept the costs of failure.

—To act in solving a problem or developing an opportunity, people need knowledge of courses of action and expected results and the skills required for the course of action selected.

—Confidence is developed by experience of neighbors,

friends, children, but especially one's self—little steps leading to larger, more daring moves.

—People acquire confidence for action as they learn from and follow the leadership of those in whom past experience has given them confidence.

—Risks are reduced, results more certain, and confidence warranted when cause and effect have been subject to scientific test and investigation. Substituting hunch for folklore is for him who can afford to fail.

—He who has participated in studying an opportunity and developing a plan of action has committed his mind and energy to success for himself on his farm, in his home, or in his community.

—Extension workers use a wide range of methods to: help people see opportunities, develop confidence needed for action, acquire the needed knowledge and skills, apply reliable scientific knowledge, and develop personal commitment to progress.

—But above all, Extension's program depends on high confidence in the ability of people to use their own good judgment in making their own decisions in light of their goals, values, and resources.

Which is just another way of saying that we help people "learn by doing." We "start where they are." If they doubt "what they hear or see," we help them remove doubt "by doing" or helping others do.

I wish I had the ability to put all that and more in one simple statement as meaningful to our children in their world as Seaman Knapp's statement in his world.

If you have this ability that I lack, I want to hear from you. □